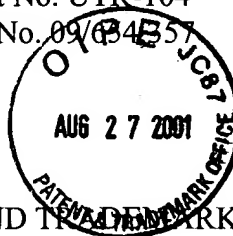


I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on August 23, 2001.

Frank C Eisenschenk  
Frank C. Eisenschenk, Ph.D., Patent Attorney

DECLARATION UNDER 37 C.F.R. § 1.131  
Examining Group 1617  
Patent Application  
Docket No. UTR-104  
Serial No. 09/654,357



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner : Helen Nguyen  
Art Unit : 1615  
Applicants : Michael B. Zemel, Hang Shi, Paula C. Zemel  
Serial No. : 09/654,357  
Filed : September 1, 2000  
For : Materials and Methods for the Treatment or Prevention of Obesity

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

DECLARATION UNDER 37 C.F.R. § 1.131

Sir:

DR. MICHAEL B. ZEMEL, DR. HANG SHI, AND DR. PAULA C. ZEMEL DECLARE:

1. THAT we are co-inventors of the invention disclosed and claimed in U.S. Application Serial No. 09/654,357.
2. THAT said invention was completed in the United States prior to January 2000, as shown by the following exhibits. We conceived and reduced to practice methods for the stimulation of lipolysis in animals by increasing the amounts of dietary calcium consumed by these animals. Dietary calcium is provided in the form of calcium carbonate or powdered non-fat milk. Exhibit 1 shows that increasing dietary calcium stimulates lipolysis. The effects of a high calcium diet on adipocyte lipolysis was assayed using a glycerol release assay as described in Example 2 of the above-identified patent application.

3. THAT Exhibit 1 is a copy of pages taken from a laboratory record created and maintained in the normal course of laboratory operations, prior to January 2000. The completion date of the experiments and analyses recorded in these laboratory notebook pages have been redacted. We hereby attest that these redacted dates are prior to the critical date.

✓ We hereby further declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

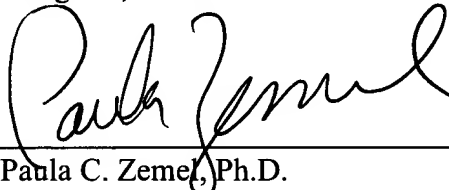
Further, Declarants sayeth not.

By: \_\_\_\_\_  
Michael B. Zemel, Ph.D.

Date: \_\_\_\_\_

By: \_\_\_\_\_  
Hang Shi, Ph.D.

Date: \_\_\_\_\_

By:  \_\_\_\_\_  
Paula C. Zemel, Ph.D.

Date: 8-21-2007



# PHOTOMETRY/GLYCL-HI

ID	I	mol/l		
STD 1	1.043	0.000		
STD 1	1.135	0.000		
MEAN	1.089		SD= 0.009	RSD= 0.489
STD 2	1.15	1.000		
STD 2	1.14	1.000		
MEAN	1.144		SD= 0.009	RSD= 0.072
STD 3	2.066	2.500		
STD 3	3.097	2.500		
MEAN	3.078		SD= 0.026	RSD= 0.844
STD 4	3.319	5.000		
STD 4	8.315	5.000		
MEAN	8.317		SD= 0.002	RSD= 0.024

## PHOTOMETRY/GLYCEROL

ID	I	mol/l		
STD 1	2.006	0.000		
STD 1	1.995	0.000		
MEAN	2.000		SD= 0.007	RSD= 0.350
STD 2	2.980	0.050		
STD 2	3.001	0.050		
MEAN	2.994		SD= 0.009	RSD= 0.300
STD 3	8.394	0.100		
STD 3	8.417	0.100		
MEAN	8.405		SD= 0.016	RSD= 0.190
STD 4	10.77	0.250		
STD 4	10.75	0.250		
MEAN	10.76		SD= 0.011	RSD= 0.130
STD 5	15.36	0.500		
STD 5	15.36	0.500		
MEAN	15.36		SD= 0.000	RSD= 0.000
STD 6	15.44	1.000		
STD 6	15.17	1.000		
MEAN	15.44		SD= 0.009	RSD= 0.058
1	4.773	0.074		
1	4.762	0.074		
1a MEAN	0.074		SD= 0.000	RSD= 0.000
2	1.096	0.036		
2	1.070	0.035		
1b MEAN	0.035		SD= 0.000	RSD= 0.000
3	6.028	0.143		
3	6.022	0.143		
2a MEAN	0.143		SD= 0.000	RSD= 0.000
4	3.148	-0.016L		
4	3.175	-0.014L		
2b MEAN	-0.015		SD= 0.001	RSD= -6.667
5	3.473	0.002		
5	3.479	0.003		
2c MEAN	0.002		SD= 0.000	RSD= 0.000
6	5.089	0.092		
6	5.085	0.091		
4a MEAN	0.091		SD= 0.000	RSD= 0.000
7	4.540	0.061		
7	4.530	0.061		

6 5.085 0.091  
 4a MEAN= 0.091 SD= 0.000 RSD= 0.000  
 7 4.540 0.061  
 7 4.536 0.061  
 4b MEAN= 0.061 SD= 0.000 RSD= 0.000  
 8 5.955 0.139  
 8 5.933 0.138  
 5a MEAN= 0.138 SD= 0.000 RSD= 0.000  
 9 5.967 0.140  
 9 5.941 0.139  
 5b MEAN= 0.139 SD= 0.000 RSD= 0.000  
 10 3.946 0.028  
 10 3.929 0.028  
 6a MEAN= 0.028 SD= 0.000 RSD= 0.000  
 11 2.255-0.065L  
 11 2.259-0.065L  
 6b MEAN= -0.065 SD= 0.000 RSD= 0.000  
 12 5.853 0.134  
 12 5.841 0.133  
 7a MEAN= 0.133 SD= 0.000 RSD= 0.000  
 13 6.030 0.143  
 13 6.004 0.142  
 7b MEAN= 0.142 SD= 0.000 RSD= 0.000  
 14 4.075 0.036  
 14 4.045 0.034  
 8a MEAN= 0.035 SD= 0.001 RSD= 2.857  
 15 4.996 0.086  
 15 4.993 0.086  
 8b MEAN= 0.086 SD= 0.000 RSD= 0.000  
 16 3.785 0.020  
 16 3.782 0.019  
 9a MEAN= 0.019 SD= 0.000 RSD= 0.000  
 17 5.017 0.088  
 17 5.020 0.088  
 9b MEAN= 0.088 SD= 0.000 RSD= 0.000  
 18 5.373 0.107  
 18 5.365 0.107  
 10a MEAN= 0.107 SD= 0.000 RSD= 0.000  
 19 2.711-0.040L  
 19 2.705-0.040L  
 10b MEAN= -0.040 SD= 0.000 RSD= 0.000  
 20 4.237 0.045  
 20 4.234 0.044  
 11a MEAN= 0.044 SD= 0.000 RSD= 0.000  
 21 5.423 0.110  
 21 6.055 0.145  
 11b MEAN= 0.127 SD= 0.024 RSD= 18.89  
 22 6.032 0.144  
 22 6.035 0.144  
 11c MEAN= 0.144 SD= 0.000 RSD= 0.000  
 23 6.307 0.159  
 23 6.277 0.157  
 12a MEAN= 0.158 SD= 0.001 RSD= 0.632  
 24 8.206 0.264  
 24 8.546 0.282  
 12b MEAN= 0.273 SD= 0.012 RSD= 4.395  
 25 4.842 0.078  
 25 4.841 0.078  
 13a MEAN= 0.078 SD= 0.000 RSD= 0.000  
 26 4.835 0.078  
 26 4.816 0.076  
 13b MEAN= 0.077 SD= 0.001 RSD= 1.298  
 27 5.661 0.123  
 27 5.822 0.132  
 14a MEAN= 0.127 SD= 0.006 RSD= 4.724  
 28 2.061-0.076L  
 28 2.028-0.077L  
 14b MEAN= -0.077 SD= 0.000 RSD= 0.000  
 29 4.391 0.053  
 29 4.857 0.061  
 15a MEAN= 0.052 SD= 0.001 RSD= 1.023  
 30 5.045 0.089  
 30 5.008 0.087

15a	MEAN= 0.052	SD= 0.001	RSD= 1.923
30	5.045 0.089		
30	5.008 0.037		
15b	MEAN= 0.088	SD= 0.001	RSD= 1.136
31	2.682-0.041L		
31	2.659-0.043L		
16a	MEAN= -0.042	SD= 0.001	RSD= -2.381
32	5.409 0.109		
32	5.397 0.109		
16b	MEAN= 0.109	SD= 0.000	RSD= 0.000
33	3.110-0.018L		
33	3.110-0.018L		
1a	MEAN= -0.018	SD= 0.000	RSD= 0.000
34	3.390-0.002L		
34	3.410-0.001L		
1b	MEAN= -0.002	SD= 0.000	RSD= 0.000
35	3.404-0.001L		
35	3.113-0.017L		
2a	MEAN= -0.009	SD= 0.011	RSD= -122.2
36	2.359-0.059L		
36	2.348-0.060L		
2b	MEAN= -0.060	SD= 0.000	RSD= 0.000
37	3.371-0.003L		
37	3.382-0.003L		
3b	MEAN= -0.003	SD= 0.000	RSD= 0.000
38	3.064-0.020L		
38	3.067-0.020L		
4a	MEAN= -0.020	SD= 0.000	RSD= 0.000
39	2.652-0.043L		
39	2.640-0.044L		
4b	MEAN= -0.044	SD= 0.000	RSD= 0.000
40	2.802-0.025L		
40	2.746-0.038L		
5a	MEAN= -0.037	SD= 0.002	RSD= -5.406
41	5.112 0.093		
41	4.785 0.075		
5b	MEAN= 0.084	SD= 0.012	RSD= 14.28
42	5.600 0.120		
42	5.577 0.118		
6a	MEAN= 0.119	SD= 0.001	RSD= 0.840
43	3.639 0.012		
43	3.652 0.012		
6b	MEAN= 0.012	SD= 0.000	RSD= 0.000
44	5.071 0.091		
44	5.060 0.090		
7a	MEAN= 0.090	SD= 0.000	RSD= 0.000
45	3.980 0.030		
45	3.985 0.031		
7b	MEAN= 0.030	SD= 0.000	RSD= 0.000
46	4.219 0.044		
46	4.212 0.043		
8a	MEAN= 0.043	SD= 0.000	RSD= 0.000
47	4.821 0.077		
47	4.792 0.075		
8b	MEAN= 0.076	SD= 0.001	RSD= 1.315
48	4.956 0.084		
48	4.955 0.084		
9a	MEAN= 0.084	SD= 0.000	RSD= 0.000
49	4.111 0.038		
49	4.082 0.036		
9b	MEAN= 0.037	SD= 0.001	RSD= 2.702
50	4.999 0.087		
50	5.004 0.087		
10a	MEAN= 0.087	SD= 0.000	RSD= 0.000
51	4.033 0.033		
51	4.046 0.034		
10b	MEAN= 0.033	SD= 0.000	RSD= 0.000
52	4.807 0.076		
52	4.792 0.075		
11a	MEAN= 0.075	SD= 0.000	RSD= 0.000
53	5.049 0.089		
53	5.044 0.089		

49 4.111 0.038  
 95 MEAN= 4.082 0.038 SD= 0.001 SD= 2.702  
 50 4.999 0.087  
 50 5.004 0.087  
 10a MEAN= 0.087 SD= 0.000 RSD= 0.000  
 51 4.033 0.033  
 51 4.046 0.034  
 10b MEAN= 0.033 SD= 0.000 RSD= 0.000  
 52 4.807 0.076  
 52 4.792 0.075  
 11a MEAN= 0.075 SD= 0.000 RSD= 0.000  
 53 5.049 0.089  
 53 5.044 0.089  
 11b MEAN= 0.089 SD= 0.000 RSD= 0.000  
 54 5.669 0.124  
 54 5.674 0.124  
 12a MEAN= 0.124 SD= 0.000 RSD= 0.000  
 55 5.830 0.132  
 55 5.793 0.130  
 12b MEAN= 0.131 SD= 0.001 RSD= 0.763  
 56 5.551 0.117  
 56 5.523 0.115  
 13a MEAN= 0.116 SD= 0.001 RSD= 0.862  
 57 3.558 0.007  
 57 3.551 0.007  
 13b MEAN= 0.007 SD= 0.000 RSD= 0.000  
 58 6.217 0.154  
 53 6.194 0.153  
 14a MEAN= 0.153 SD= 0.000 RSD= 0.000  
 59 1.984-0.080L  
 59 1.982-0.080L  
 14b MEAN= -0.080 SD= 0.000 RSD= 0.000  
 60 5.393 0.108  
 60 5.395 0.108  
 15a MEAN= 0.108 SD= 0.000 RSD= 0.000  
 61 5.425 0.110  
 61 5.424 0.110  
 15b MEAN= 0.110 SD= 0.000 RSD= 0.000  
 62 2.296-0.029L  
 62 2.697-0.029L  
 16a MEAN= -0.029 SD= 0.000 RSD= 0.000  
 63 5.112 0.093  
 63 5.154 0.095  
 16b MEAN= 0.094 SD= 0.001 RSD= 1.063  
 64 5.840 0.133  
 64 5.849 0.133  
 1 MEAN= 0.133 SD= 0.000 RSD= 0.000  
 65 5.858 0.134  
 65 5.859 0.134  
 2 MEAN= 0.134 SD= 0.000 RSD= 0.000  
 66 5.021 0.088  
 66 5.011 0.087  
 3 MEAN= 0.087 SD= 0.000 RSD= 0.000  
 67 5.401 0.109  
 67 5.413 0.109  
 4 MEAN= 0.109 SD= 0.000 RSD= 0.000  
 68 5.938 0.138  
 68 5.860 0.134  
 5 MEAN= 0.136 SD= 0.002 RSD= 1.470  
 69 5.449 0.111  
 69 5.256 0.101  
 6 MEAN= 0.106 SD= 0.007 RSD= 6.603  
 70 2.213-0.067L  
 70 2.209-0.067L  
 7 MEAN= -0.067 SD= 0.000 RSD= 0.000  
 71 5.759 0.129  
 71 5.740 0.127  
 8 MEAN= 0.128 SD= 0.001 RSD= 0.781

8	0.221	0.1988	1.11167	
			0.947136	
ACTH(100nM)				
con				
1a	0.038	0.3977	0.095549	
1b	0.057	0.3636	0.156766	
2a	0.058	0.4902	0.118319	
2b		0.4441		
3b	0.056	0.3771	0.148502	
4a	0.035	0.5005	0.06993	
4b	0.006	0.5643		0.010633
avg			0.117813	
high-Ca				
5a	0.017	0.4475		0.037989
5b	0.177	0.3302	0.536039	
6a	0.21	0.4576	0.458916	
6b	0.075	0.4078	0.183914	
7a	0.174	0.3832	0.454071	
7b	0.098	0.5349	0.183212	
8a	0.115	0.4088	0.281311	
8b	0.154	0.2215	0.69526	
avg			0.39896	
medium-dairy				
9a	0.166	0.5304	0.312971	
9b	0.107	0.4747	0.225406	
10a	0.169	0.53	0.318868	
10b	0.103	0.5327	0.193355	
11a	0.155	0.3235	0.479134	
11b	0.172	0.3931	0.437548	
12a	0.216	0.2288	0.944056	
12b	0.226	0.2761	0.818544	
avg			0.466235	
high-dairy				
13a	0.207	0.3945	0.524715	
13b	0.069	0.3999	0.172543	
14a	0.253	0.307	0.824104	
14b	0.237	0.2847	0.832455	
15a	0.196	0.2033	0.964092	
15b	0.198	0.3495	0.566524	
16a	0.023	0.4219		0.054515
16b	0.18	0.4152	0.433526	
avg			0.616851	